

AF/2800



Patent
Attorney's Docket No. 009683-329

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of)	Box AF
)	
Eiichi SANO et al.)	Group Art Unit: 2853
)	
Application No.: 09/057,502)	Examiner: Craig A. Hallacher
)	
Filed: April 9, 1998)	Confirmation No.: 6476
)	
For: INK JET PRINTER CAPABLE OF)	
INFORMING HIGH DEFINITION)	
IMAGES)	
)	

AMENDMENT/REPLY TRANSMITTAL LETTER

Assistant Commissioner for Patents
Washington, D.C. 20231

Sir:

Enclosed is a reply for the above-identified patent application.

- ☐ A Petition for Extension of Time is also enclosed.
- ☐ A Terminal Disclaimer and a check for ☐ \$55.00 (248) ☐ \$110.00 (148) to cover the requisite Government fee are also enclosed.
- ☐ Also enclosed is _____.
- ☐ Small entity status is hereby claimed.
- ☐ Applicant(s) request continued examination under 37 C.F.R. § 1.114 and enclose the ☐ \$370.00 (279) ☐ \$740.00 (179) fee due under 37 C.F.R. § 1.17(e).
- ☐ Applicant(s) previously submitted __, on __, for which continued examination is requested.
- ☐ Applicant(s) request suspension of action by the Office until at least __, which does not exceed three months from the filing of this RCE, in accordance with 37 C.F.R. § 1.103(c). The required fee under 37 C.F.R. § 1.17(i) is enclosed.
- ☐ A Request for Entry and Consideration of Submission under 37 C.F.R. § 1.129(a) (146/246) is also enclosed.
- ☒ No additional claim fee is required.

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☐ An additional claim fee is required, and is calculated as shown below:

AMENDED CLAIMS					
	NO. OF CLAIMS	HIGHEST NO. OF CLAIMS PREVIOUSLY PAID FOR	EXTRA CLAIMS	RATE	ADD'T'L FEE
Total Claims		MINUS =		× \$18.00 (103) =	
Independent Claims		MINUS =		× \$84.00 (102) =	
If Amendment adds multiple dependent claims, add \$280.00 (104)					
Total Amendment Fee					
If small entity status is claimed, subtract 50% of Total Amendment Fee					
TOTAL ADDITIONAL FEE DUE FOR THIS AMENDMENT					


☐ A claim fee in the amount of \$_____ is enclosed.

☐ Charge \$_____ to Deposit Account No. 02-4800.

The Commissioner is hereby authorized to charge any appropriate fees under 37 C.F.R. §§ 1.16, 1.17, 1.20(d) and 1.21 that may be required by this paper, and to credit any overpayment, to Deposit Account No. 02-4800. This paper is submitted in duplicate.

Respectfully submitted,

BURNS, DOANE, SWECKER & MATHIS, L.L.P.

By: 
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Date: November 6, 2002



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RESPONSE AFTER FINAL REJECTION

Assistant Commissioner for Patents
Washington, D.C. 20231

Sir:

In reply to the Official Action dated August 6, 2002, the Examiner is respectfully requested to reconsider and withdraw the outstanding rejections in view of the following arguments.

Claims 1-3, 5-11, 13-18, and 20-33 have been rejected under 35 U.S.C. §103(a) as being unpatentable over *Tence et al.* in view of *Kneezel et al.*

The Examiner relies upon *Tence et al.* for its disclosure of an ink jet printer capable of ejecting a plurality of kinds of ink droplets of different sizes from a single nozzle. The Examiner further notes that changing the scanning speed of the ink jet head relative to the medium can control the dot-to-dot spacing.

The Applicants agree that *Tence et al.* discloses a method for producing ink dots of different sizes. However, the size of the dots is dependent upon the printing mode. See col. 13, lines 29-35, wherein it indicates that in one printing mode, i.e., a first resolution,

all of the drops have a single size ("a single drop size is selected"). And, as recognized by the Examiner, the dot-to-dot spacing of the dots corresponds to the selected size of the ink drop. In other words, the size of the dot and the spacing between the dots is dependent upon the specific printing mode selected.

Tence et al. clearly does not teach or suggest the placing of a dot of one size (for example an image dot) adjacent to a smaller dot, such as a smoothing dot.

As such, the Examiner recognizes that *Tence et al.* does not disclose a smoother for performing a smoothing processing using a dot smaller than an image forming dot.

To overcome the deficiency of *Tence et al.*, the Examiner relies upon *Kneezel et al.* In particular, the Examiner alleges that *Kneezel et al.* discloses an ink jet printer which prints image forming and smoother dots, wherein a center of at least one of the smoothing dots is smaller than the distance between a center of the image forming dots. The Examiner then concludes that it would have been obvious to one of ordinary skill in the art at the time of the invention to provide smoother dots closer together than image forming dots in the printer of *Tence et al.* However, the Examiner's conclusion fails to indicate how the teachings of *Kneezel et al.* could be applied to *Tence et al.*

Specifically, *Kneezel et al.* teaches the use of image forming dots and smoother dots by incorporating a plurality of nozzles, and by setting the spacing between the nozzles at different distances. Accordingly, if *Tence et al.* would be modified in order to eject the dots of different sizes with different spacings, the only way taught in either of the references is to use a plurality of nozzles with different spacings, as taught by *Kneezel et al.* There is no teaching or suggestion in either of the references as to how a single nozzle

could be used to emit the dots of different sizes with varied spacings. Accordingly, the modification suggested by the Examiner would result in structure that is different than the claimed invention. Specifically, the resulting structure would require a plurality of nozzles to eject ink droplets of different sizes. Claims 1, 9, and 17, and 31, each require a single nozzle capable of ejecting ink droplets of different sizes. Claims 24 and 30 each define a nozzle for ejecting ink droplets of different sizes. Accordingly, the apparatus and method disclosed in the prior art for ejecting ink droplets of different sizes width uses more than one nozzle.

Furthermore, as set forth above, the Examiner does not indicate how the teachings of *Kneezel et al.* are to be used to modify the teachings of *Tence et al.* in order to result in the claimed invention. However, Applicants assume that a significant change in structure of *Tence et al.* would be required in order to render the structure disclosed therein capable of meeting the elements of the pending claims.

The Examiner's attention is directed to §2143.01 of the Manual of Patent Examining Procedure, wherein it indicates that if a proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of references are not sufficient to render the claims *prima facie* obvious. Applicants submit that the principle of operation of *Tence et al.* would have to be significantly changed in order to meet the language of the pending claims. Accordingly, the combination and modification proposed by the Examiner is not appropriate, and should be withdrawn.

Accordingly, in view of the foregoing remarks, the Examiner is respectfully
requested to reconsider and withdraw the outstanding rejections.

Respectfully submitted,

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